

# County of Los Angeles CHIEF EXECUTIVE OFFICE

Kenneth Hahn Hall of Administration 500 West Temple Street, Room 713, Los Angeles, California 90012 (213) 974-1101 http://ceo.lacounty.gov

June 7, 2010

Board of Supervisors GLORIA MOLINA First District

MARK RIDLEY-THOMAS Second District

ZEV YAROSLAVSKY Third District

DON KNABE Fourth District

MICHAEL D. ANTONOVICH Fifth District

To:

Supervisor Gloria Molina, Chair Supervisor Mark Ridley-Thomas Supervisor Zev Yaroslavsky Supervisor Don Knabe

Supervisor Michael D. Antonovich

From:

William T Fujioka

Chief Executive Officer

# FINAL REPORT ON PROPOSED AUTOMATED INTERAGENCY DATA SYSTEM - E-MHUB PROJECT

On May 16, 2006, your Board instructed the Chief Information Officer (CIO), in conjunction with the Chief Executive Officer, the Directors of the Departments of Health Services (DHS), Children and Family Services (DCFS), Mental Health (DMH), and County Counsel to report back in 30 days on the feasibility of a cost-effective automated data system and include in the analysis the status of the medical passport.

Since 2006, we provided your Board numerous reports on the County's efforts to move forward with the development and implementation of an Enterprise mHUB (E-mHUB) System, an alternative to the proposed Child Health and Education Passport Pilot Project. This memorandum represents our final report to your Board on this effort.

As previously reported to your Board, this Office convened the E-mHUB Work Group with all aforementioned departments to assess the electronic sharing of medical health information for children referred by DCFS. The goal of the E-mHUB System is to improve continuity of care by sharing information among the six DHS operated Medical Hubs which provide initial medical examinations, forensic evaluations, mental health screenings, and on-going medical care to children, a majority of whom are newly detained.

Each Supervisor June 7, 2010 Page 2

The E-mHUB Work Group completed the noted assessment, and other tasks, including but not limited to the following:

- Recruitment and hiring of the E-mHUB Project Manager at DHS;
- ➤ Identified funding for one-time project start-up costs, on-going operations and maintenance fees, pool dollars for additional enhancements, training, and other services;
- Development of best practices and standards and procedures for the data sharing system; and
- ➤ Identified measures to ensure role-based access was in accordance with applicable laws regarding confidentiality and health information privacy and data security.

Resolution of these matters and various other issues ultimately led to the E-mHUB Work Group's recommendation that the proposed E-mHUB System was the most feasible electronic solution to pursue. On March 30, 2010, your Board approved a sole source agreement with Saga Technologies, Inc. (Saga), to develop the E-mHUB System, establishing electronic communication between all the Medical Hubs, including transmission of forms and notifications to DCFS electronically (Attachment I).

The sole source agreement with Saga was fully executed on May 4, 2010 and the initial E-mHUB Project kick-off meeting was held on May 25, 2010. Next steps are summarized in the Estimated Project Timeline (Attachment II). DHS will provide your Board status reports, as appropriate, on project milestones. Full implementation of the E-mHUB System is targeted for completion by June 2011.

Please contact me if you have any questions or your staff may contact Sheila Shima, Deputy Chief Executive Officer, at (213) 974-1160.

WTF:BC:SAS MLM:DL:bis

#### **Attachments**

c: Executive Office, Board of Supervisors
County Counsel
Chief Information Office
Children and Family Services
Health Services
Mental Health

060710\_HMHS\_MBS\_E-mHUB.docx

ADOPTED

BOARD OF SUPERVISORS

COUNTY OF LOS ANGELES

# 28 of MAR 30 2010

SACHI A HAMAI

**EXECUTIVE OFFICER** 



March 30, 2010

Los Angeles County **Board of Supervisors** 

> The Honorable Board of Supervisors Gloria Molina First District

County of Los Angeles

Mark Ridley-Thomas 383 Kenneth Hahn Hall of Administration Second District

500 West Temple Street Los Angeles, CA 90012

Don Knabe Fourth District

Third District

Fifth District

Zev Yaroslavsky

**Dear Supervisors:** 

APPROVAL OF A SOLE SOURCE SERVICES AGREEMENT FOR AN ENTERPRISE mHUB SYSTEM (ALL SUPERVISORIAL DISTRICTS) (3 VOTES)

John F. Schunhoff, Ph.D. Interim Director

Michael D. Antonovich

Robert G. Splawn, M.D. Interim Chief Medical Officer

CIO RECOMMENDATION: **APPROVE APPROVE (X)** WITH MODIFICATION ( ) DISAPPROVE ( )

#### **SUBJECT**

313 N. Figueroa Street, Suite 912 Los Angeles, CA 90012

> Tel: 213-240-8101 Fax:213-481-0503

www.dhs.lacounty.gov

To improve health through leadership. service and education Request approval of a sole source Agreement for an Enterprise mHUB System and services to be used at Department of Health Services Medical Hubs.

#### IT IS RECOMMENDED THAT YOUR BOARD:

- Authorize the Interim Director of Health Services (Interim Director), or 1. his designee, to execute an Agreement with Saga Technologies, Inc. (Saga), effective upon Board approval, for a term of five years, and an additional optional one year extension, for the Enterprise mHUB (EmHUB) web application, and other identified services at a maximum obligation of \$4,614,194 for all six years.
- 2. Delegate authority to the Interim Director, or his designee, to exercise the additional one-year extension option, through March 30, 2016. subject to the review and approval by County Counsel, Chief Executive Office (CEO) and the Chief Information Office (CIO).
- 3. Delegate authority to the Interim Director, or his designee, to execute change notices: (i) for additional work, provided the amounts payable under such change notices do not exceed the available pool dollars; and (ii) to modify the data sharing requirements set forth in the Agreement. Each such change notice shall be subject to the review and approval by County Counsel, CEO and CIO.



The Honorable Board of Supervisors March 30, 2010 Page 2

#### PURPOSE/JUSTIFICATION OF RECOMMENDED ACTIONS

Approval of the first recommendation will allow the Interim Director to execute an Agreement, substantially similar to Exhibit I, with Saga, to expand and enhance an application currently in place at the LAC+USC Medical Center's Medical Hub for use at all the Department of Health Services (DHS) Medical Hubs.

Approval of the second recommendation will allow the Interim Director to extend the Agreement one additional year, subject to the review and approval of County Counsel, CEO and CIO.

Approval of the third recommendation will allow the Interim Director to execute change notices to the Agreement, under the circumstances listed above, subject to the review and approval by County Counsel, CEO and CIO.

DHS operates Medical Hubs at Harbor-UCLA Medical Center, High Desert Multi-Services Ambulatory Care Center (MACC), LAC+USC Medical Center, Martin Luther King, Jr. MACC, Olive View-UCLA Medical Center, and an LAC+USC East San Gabriel Valley satellite location at MacLaren Children's Center. The six Medical Hubs provide initial medical examinations, forensic evaluations, mental health screenings, and ongoing medical care to children referred by the Department of Children and Family Services (DCFS).

Saga developed the mHUB System, a custom standalone web-based software application, currently in use at the LAC+USC Medical Hub. The mHUB System contains essential patient information such as medical and forensic information and records, tracks patient and provider appointment schedules, and supports Medical Hub business workflow.

On September 11, 2008, your Board received notification of DHS' intent to enter into sole source negotiations with Saga, to expand and enhance the mHUB System from a standalone application to an enterprise application at all six DHS Medical Hubs. This enterprise system is identified as "E-mHUB" and will be a web-based application, hosted at the Internal Services Department Data Center in Downey.

The E-mHUB System will enable DHS to: receive patient referrals electronically from DCFS, track patient and provider appointment schedules; capture patient medical and forensic information; and obtain necessary medical information faster and more efficiently. The E-mHUB System will generate and electronically transmit PDF versions of forms reporting examination results and notifications of missed appointments to DCFS.

The Honorable Board of Supervisors March 30, 2010 Page 3

In addition, the E-mHUB System will enable health care providers at one Medical Hub to view a child's medical information at another, enhancing the child's treatment and improving their continuity of care. It will also enable public health nurses located at DCFS offices to view limited E-mHUB screens to obtain and input into DCFS' case management system follow-up information so DCFS may better coordinate the child's care.

The E-mHUB System is designed to ensure that access to health information is in compliance with State and federal confidentiality and privacy laws.

#### Implementation of Strategic Plan Goals

The recommended actions support Goal 2, Children, Family and Adult Well-Being and Goal 4, Health and Mental Health of the County's Strategic Plan.

#### FISCAL IMPACT/FINANCING

The Agreement establishes a maximum contract obligation of \$4,614,194 over the entire six-year period, as shown in Attachment A, and commences upon your Board's approval.

Year 1 reflects one-time project start-up costs (software and professional services) of \$1,912,430 and will be funded through the County's Information Technology Fund (ITF), as approved by your Board on September 12, 2000.

The remaining costs under this Agreement, \$197,200 in Year 1 and \$500,913 in Years 2 - 6, will cover ongoing operations and maintenance fees and pool dollars for additional enhancements, training and other services, which will be funded through DHS' Cost-Based Reimbursement Clinic Medi-Cal revenues for eligible costs and intrafund transfer funds from DCFS.

In addition, one Information Systems Specialist I allocated to DHS will function as the E-mHUB Project Manager. Funding for this position is fully offset with intrafund transfer funds from DCFS.

Funding is included in the Department's Fiscal Year 2009-10 Final Budget and will be requested in future fiscal years.

#### **FACTS AND PROVISIONS/LEGAL REQUIREMENTS**

This Agreement may be terminated for convenience by the County upon 30 days prior written notice. The Agreement requires Saga to provide a performance bond or other performance security acceptable to the County in an amount equal to \$2.0 million.

The Honorable Board of Supervisors March 30, 2010 Page 4

Saga has requested the County's approval to accept an irrevocable letter of credit in lieu of a performance bond. DHS, in consultation with the CEO Risk Management Branch, has determined that it is acceptable, provided the letter of credit complies with the County's minimum criteria and standards during the entire term of the Agreement.

All Board of Supervisors' required provisions, including the most recent provisions such as the Defaulted Property Tax Reduction Program, and recently revised provisions such as Contractor's Obligations as a Business Associate under the Health Insurance Portability and Accountability Act of 1996 and the Health Information Technology for Economic and Clinical Health Act, are included in this Agreement.

The County's CIO recommends approval of this proposed Agreement. Attachment B includes the CIO's analysis for concurrence with the Department's recommendation. This Agreement has also been reviewed and approved as to form by County Counsel.

The Department has evaluated and determined that the Living Wage Program (County Code Charter 2.201) does not apply to the recommended Agreement.

#### **CONTRACTING PROCESS**

On September 11, 2008, your Board was notified of DHS' intent to enter into sole source negotiations with Saga Technologies, Inc., to expand and enhance the existing mHUB system to automate business processes at all six DHS Medical Hubs. An approved Sole Source checklist (Attachment C) is included in accordance with Board Policy 5.100 Sole Source Contracts.

#### IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommendations will allow for better tracking of the health and mental health status of these special patients at the County Medical Hubs. The E-mHUB application will facilitate the provision of quality medical care, and improve coordination of services.

The Honorable Board of Supervisors March 30, 2010 Page 5

Respectfully submitted,

John F. Schunhoff, Ph.D.

Interim Director

JFS:at

Attachments (4)

c: Chief Executive Office
County Counsel
Executive Office, Board of Supervisors
Department of Children and Family Services
Department of Mental Health Services
Internal Services Department

Reviewed by:

Richard Sanchez

**Chief Information Officer** 

# E-mHUB ATTACHMENT A CONTRACT SUM

Totals	\$ 1,912,429.55	\$ 97,200.00	\$ 2,004,564.00	\$ 600,000.00	\$ 4,614,193.55
Optional Year 6			\$ 400,912.80	\$ 100,000.00	\$ 500,912.80
Year 5	·		\$ 400,912.80	\$ 100,000.00	\$ 500,912.80
Year 4			\$ 400,912.80	\$ 100,000.00	\$ 500,912.80
Year 3			\$ 400,912.80	\$ 100,000.00	\$ 500,912.80
Year 2			\$ 400,912.80	\$ 100,000.00	\$ 500,912.80
Year 1	\$ 1,912,429.55	\$ 97,200.00	ς,	\$ 100,000.00	\$ 2,109,629.55
Description	One Time Costs (Section I)	erations enance )*	E-mHUB Operations and Maintenance Fees (Section II) *	Pool Dollars (Section III) *	TOTALS

# **CIO ANALYSIS**

REQUEST BY THE DEPARTMENT OF HEALTH SERVICES (DHS) FOR APPROVAL OF SOLE SOURCE AGREEMENT WITH SAGA TECHNOLOGIES, INC. (SAGA) FOR AN ENTERPRISE MEDICAL HUB (E-mHUB) WEB APPLICATION AND SERVICES

CIO RECOMMENDATION:	APPROVE APPRO	OVE WITH MODIFICATION						
Contract Type:  New Contract Sole Source Contract	Contract Amendment Hardware Acquisition	Contract Extension Other						
New/Revised Contract Term	: Base Term: <u>5 Yrs.</u>	# of Option Yrs: 1						
Contract Components:	Hardware	Telecommunications						
Project Executive Sponsor:	John F. Schunhoff, Ph.D., Inter	im Director, DHS						
Budget Information :								
Y-T-D Contract Expenditures	\$0							
Requested Contract Amount	\$4,614,194							
Aggregate Contract Amount	\$4,614,194							
Project Background:								
Yes No	Question							
Is this project legisl								
Is this project subve	Is this project subvented? If yes, what percentage is offset?							
া বিভাগ বি	Is this project/application applicable to (shared use or interfaced) other departments? If yes, name the other department(s) involved?  The EmHUB System is shared by DHS and the Department of Children and Family Services (DCFS).							
Strategic Alignment:								
Yes No	Question							
Is this project in alig	gnment with the County of Los An	geles Strategic Plan?						
	stent with the currently approved							
Does the project's to Directions Document	echnology solution comply with C nt?	county of Los Angeles IT						

	Does the project technology solution comply with preferred County of Los Angeles IT Standards?
	This contract and/or project and its milestone deliverables must be entered into the Information Technology Tracking System (ITTS).

#### **Project/Contract Description:**

This project involves the expansion and enhancement of a current stand-alone software application (mHUB) being used by the Medical Hub clinic located at the LAC+USC Medical Center (LAC+USC), to enhance its functionality and make it available via the Web to all six Medical Hub clinics throughout the County. This expanded and enhanced software system will be called the Enterprise Medical Hub System (E-mHUB).

Approval of this recommendation authorizes the Interim Director of DHS, or his designee, to execute a sole-source Agreement with Saga Technologies, Inc. (Saga), for a base term of five years through March 30, 2015, together with an additional optional one-year extension, for the development of the E-mHUB system and other identified services, at a maximum obligation of \$4,614,194 for the entire six-year period covered by this Agreement. It further authorizes the execution of change notices for additional work to be performed by Saga, payable with pool dollars set aside in the total Contract Sum and to modify the data sharing requirements set forth in the Agreement, subject to review and approval of County Counsel, the Chief Executive Office (CEO), and the County's Chief Information Office (CIO).

#### Background:

DHS currently operates six Medical Hub clinics around the County of Los Angeles (Harbor-UCLA Medical Center, High Desert Multi-Service Ambulatory Care Center (MACC), LAC+USC Medical Center, Martin Luther King, Jr. MACC, Olive View-UCLA Medical Center, and an LAC+USC East San Gabriel Valley satellite location at MacLaren Children's Center. The Medical Hubs provide initial medical examinations, forensic evaluations, mental health screenings, and ongoing medical care to children referred by DCFS.

These Medical Hubs were modeled after the first clinic at LAC+USC Medical Center established through a public-private partnership with The Violence Intervention Program (VIP). VIP contracted with Saga Technologies, Inc., (Saga) to develop a stand-alone custom software application (mHUB), currently in use only at the LAC+USC-VIP Medical Hub clinic, to keep better track of patient and provider appointment schedules, capture medical and forensic information, and support a host of Medical Hub business workflows.

On May 16, 2006, the CIO, CEO, County Counsel, DHS, DCFS, DMH were instructed by the Board to explore the feasibility of a cost-effective automated data system for all of the County's Medical Hubs.

On September 11, 2008, DHS notified the Board of its intent to enter into sole source negotiations with Saga to replicate, enhance and expand all of the mHUB features and services to all six DHS Medical Hub clinics.

#### **Project Justification/Benefits:**

This expanded and enhanced enterprise-wide system E-mHUB will be a web-based application hosted at the County's Internal Services Department (ISD) Data Center in Downey. It will automate the DCFS' patient referral process to the Medical Hubs and allow for the tracking of patient and provider appointment schedules, the capturing of patient medical and forensic information, the generation and electronic transmission to DCFS of PDF versions of examination results, as well as notifications of missed appointments. If a foster child is seen at more than one Medical Hub, health care providers at one Medical Hub will be able to view that child's medical information from other Medical Hubs, greatly enhancing continuity of care and child safety. Public Health Nurses located at DCFS' offices will also be able to view a limited number of E-mHUB screens to obtain follow-up information on children assigned to them for care coordination.

#### **Project Metrics:**

A comprehensive project plan, requiring County's approval, will be developed by the vendor that will ensure the delivery of the product and all desired functionality. The project is deliverables-based and no payments will be made to the vendor until each deliverable is received, tested, approved, and accepted by the County.

# Impact on Service Delivery or Department Operations if Proposal Is Not Approved:

If this recommendation is not approved, the County's desire to expand the current mHUB system to all of the County's Medical Hub clinics will not be realized, adversely affecting continuity of care and child safety of foster children.

#### **Alternatives Considered:**

The current mHUB system was developed by Saga and is its proprietary product. As such, no other vendor could be brought in to expand and enhance the current mHUB system. There are no similar software applications in existence that perform the functions currently performed by the mHUB system or those enhanced functions desired by DHS, and engaging another software development company to create such an application was determined to be unnecessarily cost-prohibitive and time consuming. Under the approach being taken by DHS, Saga will leverage the existing mHUB system to more efficiently and effectively develop a significantly improved, enterprise-wide, web-accessible application.

#### **Project Risks:**

As with all software development projects, there is always the risk that the new system will not be completed or if completed, will not perform as desired. There is also a risk that Protected Health Information (PHI) being processed by the application and stored in its database could inadvertently become compromised or that unauthorized individuals could access that information.

#### **Risk Mitigation Measures:**

As discussed earlier, the County is mitigating these risks by identifying clearly defined project deliverables. To protect the County's investment in this development project, the Agreement requires Saga to provide a \$2 million Letter of Credit to guarantee performance, more than adequately covering the entire amount that the County is obligated to spend on the development phase of this project. As a further risk mitigation measure, the Agreement allows the County to terminate for convenience upon 30 days prior written notice.

#### **Financial Analysis:**

The Agreement establishes a maximum contract obligation of \$4,614,194 over its entire sixyear period, commencing with the approval of the Agreement. The table below provides a breakdown of the contract amounts.

Description	Cost
Software*	\$ 575,000
Professional Services*	1,337,430
Maintenance & Support**	2,101,764
Pool Dollars	600,000
Total	\$ 4,614,194

<sup>\*</sup> ITF funded.

Funding for this project is coming from the following sources:

- One-time project start-up costs (software and professional services) of \$1,912,430 will be funded through the County's Information Technology Fund (ITF), as approved by the Board on September 12, 2000; and
- The remaining balance for ongoing maintenance and operations fees and pool dollars for additional enhancements, training and other services will be funded by DHS' Cost-Based Reimbursement Clinic Medi-Cal revenues for eligible costs and intrafund transfer funds from DCFS.

#### **CIO Concerns:**

The CIO is satisfied that the project requirements have been carefully and comprehensively defined, all appropriate measures are being taken to mitigate any potential risks, and DHS has taken thorough and appropriate steps to ensure a successful development and implementation project. The Agreement provides significant assurances that fully protect the County's anticipated investment and that greatly minimize the County's potential risks in moving forward with this engagement.

#### **CIO Recommendations:**

The CIO recommends approval of this request.

<sup>\*\*</sup>Includes \$97,200 one-time funding to support mHUB cutover in Year 1.

## CIO APPROVAL

Date Received: March 2, 2010

Prepared by:

Earl Bradley

Date:

March 10, 2010

Approved:

Date:

2010

P:\Drafts\DHS\EmHUB\CIO BRD ANALYSIS - EmHUB.doc

## SOLE SOURCE CHECKLIST

	SOLL SOURCE CHECKLIST
Check ( ✓)	JUSTIFICATION FOR SOLE SOURCE CONTRACTS
1	<ul> <li>Identify applicable justification and provide documentation for each checked item.</li> <li>➤ Only one bona fide source for the service exists; performance and price competition are not available.</li> </ul>
	Los Angeles County is the only local government with dedicated health clinics serving children within the child welfare system. A commercial off-the-shelf information system for automating communication across multiple County Departments which have clearly delineated functions is not viable.
	Saga Technologies, Inc has developed a custom written web-based software application which is currently in use at the LAC+USC Medical Hub. The mHUB System contains essential patient information such as medical and forensic information and records, tracks patient and provider appointment schedules, and supports Medical Hub business workflow. The new Enterprise mHUB (E-mHUB) web application will enable DHS to: receive patient referrals electronically submitted by DCFS; track patient and provider appointment schedules; capture patient medical and forensic information; and obtain necessary medical information faster and more efficiently. The E-mHUB System will generate and electronically transmit PDF versions of forms reporting examination results and notifications of missed appointments to DCFS. The purpose of sharing child health information is to ensure the continuity of medical care and safety of children who are seeking assistance from the County.
	Saga Technologies, Inc. specializes in using third party software tools to custom develop information system around unique business processes. Saga developed the mHUB System, which is the model for the E-mHUB System. There are other vendors that perform similar system development services, however, they would need to develop an application from scratch, which would add additional project time and costs.
	Quick action is required (emergency situation).
	> Proposals have been solicited but no satisfactory proposals were received.
	Additional services are needed to complete an ongoing task and it would be prohibitively costly in time and money to seek a new service provider.
	Maintenance service agreements exist on equipment which must be serviced by the authorized manufacturer's service representatives.

#### ATTACHMENT C

## SOLE SOURCE CHECKLIST

	It is more cost-effective to obtain services by exercising an option under an existing contract.
	It is in the best interest of the County, e.g., administrative cost savings, excessive learning curve for a new service provider, etc.
	➤ Other reason. Please explain:
M Deputy	Chief Executive Officer, CEO

# E-mHUB System Estimated Project Timeline Assumes a May 4, 2010 Agreement Effective Date

May   Jun   Jun   Jun   Jun   Jun   Ang   Sept   Oct   Nov   Dec   Jun   Feb   Mar   Apr   May   Jun	Battle address	2010									<del></del>	2011				
A	Milestones	May	Jun	Jul	Aug	Sep	ot	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Deliverable 2.1  PROJECT COCK-OFF  30 Days  PROJECT COCK-OFF  44 Days  PROJECT COCK-OFF  45 Days  PROJECT COCK-OFF  46 Days  PROJ	Deliverables 1.1 through 1.7		L . ,					<u> </u>			<u> </u>					
PROJECT KOK-OFF 30 Days  PROJECT KOK-OFF 30 Days  PROJECT CONTROL DOCUMENT  PROJECT CONTROL DOCU	MIGRATE mHUB TO ISD HOST SITE	7(														
PROJECT CONTROL DOCUMENT  PROJECT CONTROL DOCUMENT  PROJECT CONTROL DOCUMENT  PROVINCE A STANDARD DOCUMENT  PROVINCE A STANDAR	Deliverables 2.1 and 2.2				<u> </u>				<u> </u>					<del> </del>		
ROJECT CONTROL DOCUMENT  30 Days  45 Days  45 Days  45 Days  90 Days  90 Days  90 Days  15 Days  16 Days  18 Da	PROJECT KICK-OFF	30 Days														
ASSIGNATION DOCUMENT  INDUSTRAINED  INDUSTRA	Deliverable 3.1													<u> </u>		
ANDUE BUSINESS PROCESSES  AS Days  TECHNICAL REQUIREMENTS PRECIFICATION DOCUMENT  TECHNICAL REQUIREMENTS PRECIFICATION DOCUMENT  TEST STRATEGY PLAN  Days  TEST STRATEGY PLAN  Days  TEST STRATEGY PLAN  Days  TEST STRATEGY PLAN  TEST STRATEGY PLAN  Days  TEST STRATEGY PLAN  TEST STRATEGY PLAN  TEST STRATEGY PLAN  Deliverable 6  TO Days  TEST STRATEGY PLAN  TEST STRA	PROJECT CONTROL DOCUMENT	30 D	ays													
DOUNEMENT Deliverable 5.7 TECHNICAL REQUIREMENTS PRECIFICATION DOCUMENT  Deliverable 5.8 TEST STRATEGY PLAN  Deliverable 6 SYSTEM DESIGN DOCUMENT  Deliverable 7.1 through 7.10 E-mHUB SYSTEM DEVELOPED  TISO Days  TEST SCRIPTS PREPARED  TO Days  TO	Deliverable 4			•												
PECHNICAL REQUIREMENTS PECHCATION DOCUMENT  Deliverable 6.8  LEST STRATEGY PLAN  Deliverable 6 SYSTEM DESIGN DOCUMENT  60 Days  60 Days  15 Days  15 Days  15 Days  15 Days  15 Days  15 Days  16 Days  17 Days  18 Deliverable 7.1 through 7.10  E-mHUB SYSTEM DEVELOPED  18 Days  Deliverable 9 SD HOST SITE ESTABLISHED  Deliverable 9 SD HOST SITE ESTABLISHED  Deliverable 11.2	UNIQUE BUSINESS PROCESSES DOCUMENT			45 Days												
PRECIFICATION DOCUMENT  Deliverable 8 PSYSTEM DESIGN DOCUMENT  Selverable 9 Send Deliverable 8 TEST SCRIPTS PREPARED  Deliverable 9 SID HOST SITE ESTABLISHED  Deliverable 11.2 THINDE SYSTEM DERIVED ON ISD DESIGN THE MERCHANISH  Deliverable 12.1 THINDE SYSTEM DERIVED ON ISD DELIVERABLE STABLISHED  SO DAYS  DELIVERABLE STABLISHED  SO DAYS  SO DELIVERABLE STABLISHED  OBTORISM THE STABLISHED  SO DAYS  SO DAYS	Deliverable 5.7		i			<del></del>										
JEST STRATEGY PLAN  Deliverable 6 SYSTEM DESIGN DOCUMENT  Deliverable 7.1 through 7.10 E-mHUB SYSTEM DEVELOPED  150 Days  JOHIVERABLE 9 SD HOST SITE ESTABLISHED  Deliverable 19 SD HOST SITE ESTABLISHED  Deliverable 19 SO HOST SITE MARDWARE  Deliverable 12.1 through 12.3 GOEDPTANCE TESTING  Deliverable 14.2 SYSTEM TRAINING  Deliverable 14.2 SYSTEM TRAINING  Deliverable 16.3 GO-LIVE FOR EACH E-mHUB LOCATION  Deliverable 17	TECHNICAL REQUIREMENTS SPECIFICATION DOCUMENT		90 1			Days	)ays									
Deliverable 6 SYSTEM DESIGN DOCUMENT  160 Days	Deliverable 5.8				T					-		<del>                                     </del>		<u> </u>		
SYSTEM DESIGN DOCUMENT  Sellverables 7.1 through 7.10  Semilus SYSTEM DEVELOPED  150 Days  To	TEST STRATEGY PLAN															
Deliverables 7.1 through 7.10 E-mHUB SYSTEM DEVELOPED  Deliverable 8 TEST SCRIPTS PREPARED  Deliverable 9 SD HOST SITE ESTABLISHED  Deliverable 11.2 E-mHUB SYSTEM CERTIFIED ON ISD IOST SITE HADWARE  Deliverable 12.1 through 12.3 IOCEPTANCE TESTING  Deliverable 14.2 SYSTEM TRAINING  Deliverables 16.1 through 16.3 SO-LIVE FOR EACH E-mHUB LOCATION  JO Days  JO Day	Deliverable 6						.4									
Deliverable 8 TEST SCRIPTS PREPARED TO DELIverable 9 SD HOST SITE ESTABLISHED TO DELIVERABLE 11.2 E-INHUB SYSTEM CERTIFIED ON ISD ODELIVERABLE 12.1 through 12.3 ACCEPTANCE TESTING TO DELIVERABLE 14.2 SYSTEM TRAINING TO DELIVERABLE 16.1 through 16.3 SO-LIVE FOR EACH E-INHUB LOCATION TO DELIVERABLE 17	SYSTEM DESIGN DOCUMENT					60	60 Days									
Deliverable 8 TEST SCRIPTS PREPARED TO Deliverable 9 SD HOST SITE ESTABLISHED TO Deliverable 11.2 E-INHUB SYSTEM CERTIFIED ON ISD OST SITE HARDWARE Deliverables 12.1 through 12.3 ACCEPTANCE TESTING TO Deliverable 14.2 SYSTEM TRAINING TO Deliverable 14.3 SO-LIVE FOR EACH E-INHUB LOCATION TO Deliverable 16.3 SO-LIVE FOR EACH E-INHUB LOCATION TO Deliverable 17	Deliverables 7.1 through 7.10				<u> </u>			t_		<u> </u>		1				
TEST SCRIPTS PREPARED  75 Days  60 Days  60 Days  Deliverable 11.2	E-mHUB SYSTEM DEVELOPED			150 Days												
Deliverable 9 SD HOST SITE ESTABLISHED  60 Days  60 Days  60 Days  30 Days  Deliverable 11.2	Deliverable 8							·			<del></del>					
SD HOST SITE ESTABLISHED  Deliverable 11.2 E-mHUB SYSTEM CERTIFIED ON ISD HOST SITE HARDWARE  Deliverables 12.1 through 12.3 ACCEPTANCE TESTING  Poliverable 14.2 SYSTEM TRAINING  Deliverables 16.1 through 16.3 SO-LIVE FOR EACH E-mHUB LOCATION  Deliverable 17	TEST SCRIPTS PREPARED						75 Days	3								
Deliverable 11.2 E-mHUB SYSTEM CERTIFIED ON ISD HOST SITE HARDWARE  Deliverables 12.1 through 12.3 ACCEPTANCE TESTING  Deliverable 14.2 SYSTEM TRAINING  Deliverables 16.1 through 16.3 SO-LIVE FOR EACH E-mHUB LOCATION  Deliverable 17	Deliverable 9															
E-mHUB SYSTEM CERTIFIED ON ISD HOST SITE HARDWARE  Deliverables 12.1 through 12.3 ACCEPTANCE TESTING  90 Days  60 Days  Peliverables 16.1 through 16.3 BO-LIVE FOR EACH E-mHUB LOCATION  Deliverable 17	ISD HOST SITE ESTABLISHED			60	Days											
ACCEPTANCE TESTING 90 Days ACCEPTANCE TESTING 90 Days 60 Days 60 Days Peliverables 16.1 through 16.3 30 Days Peliverable 17	Deliverable 11.2	•					T									
ACCEPTANCE TESTING  90 Days  Celiverable 14.2  SYSTEM TRAINING  60 Days  Celiverables 16.1 through 16.3  GO-LIVE FOR EACH E-mHUB LOCATION  Celiverable 17	E-mHUB SYSTEM CERTIFIED ON ISD HOST SITE HARDWARE						30 D	ays								
Deliverable 14.2 SYSTEM TRAINING 60 Days Deliverables 16.1 through 16.3 SO-LIVE FOR EACH E-mHUB LOCATION Deliverable 17	Deliverables 12.1 through 12.3			İ									<del> </del>		<u> </u>	
SYSTEM TRAINING  60 Days  Deliverables 16.1 through 16.3  30 Days  Deliverable 17	ACCEPTANCE TESTING							90	Days	***************************************						
Deliverables 16.1 through 16.3  SO-LIVE FOR EACH E-mHUB LOCATION  Deliverable 17	Deliverable 14.2						1				<u> </u>				ļ	
30 Days Deliverable 17	SYSTEM TRAINING									60	Days					
Deliverable 17	Deliverables 16.1 through 16.3				<del> </del>	i i		<u>_</u>					<u> </u>		<u> </u>	
Deliverable 17	GO-LIVE FOR EACH E-mHUB LOCATION					***************************************					30 Days					
INAL SYSTEM ACCEPTANCE 60 Days	Deliverable 17											Т	1	<del>'                                     </del>		
	FINAL SYSTEM ACCEPTANCE												60 Days			

NOTE: This Attachment is a draft and constitutes an estimate for illustrative purposes only.